Pesi Dumlavwalla
Becker Syntema Indiana, Inc.
4751 Green Court
Elkhart, IN 46516

Re: Exempt Construction and Operation Status
039-14010-00555

Dear Mr. Dumlavwalla:

The application from Becker Syntema Indiana, Inc., received on March 6, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that your emission source, a coating custom-tinting operation located at 4751 Green Court, Elkhart, IN 46516, is classified as exempt from air pollution permit requirements. The emission source consists of the following emission units:

(a) Four (4) natural gas-fired radiant space heaters, rated at 600,000 BTU per hour total.
(b) One (1) natural gas-firedair makeup unit rated at 650,000 BTU per hour.
(c) One (1) natural gas-fired office space heater rated at 64,000 BTU per hour.
(d) One (1) mixer, rated to mix 300.25 pounds of coating per hour.
(e) One (1) spray booth, used for the testing of tints, with particulate matter emissions controlled by dry filters.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions from the spray booth shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

   (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Any change or modification which may increase the emission source's potential particulate matter (PM) emissions to five tons per year or more or the potential volatile organic compound (VOC) emissions to 10 tons per year or more must be approved by the Office of Air Quality (OAQ) before such change may occur.

Sincerely,

Original signed by Paul Dubnetezky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ARD

cc: File - Elkhart County
Elkhart County Health Department
IDEM - Northern Regional Office
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	**Becker Syntema Indiana, Inc.**
Source Location:	**4751 Green Court, Elkhart, IN 46516**
County:	**Elkhart**
SIC Code:	**2851**
Registration #:	**039-14010-00555**
Reviewer:	**Allen R. Davidson**

On March 6, 2001, the Office of Air Quality (OAQ) received an application from Becker Syntema Indiana, Inc. relating to the construction and operation of the following equipment:

(a) Four (4) natural gas-fired radiant space heaters, rated at 600,000 BTU per hour total.
(b) One (1) natural gas-fired air makeup unit rated at 650,000 BTU per hour.
(c) One (1) natural gas-fired office space heater rated at 64,000 BTU per hour.
(d) One (1) mixer, rated to mix 300.25 pounds of coating per hour.
(e) One (1) spray booth, used for the testing of tints, with particulate matter emissions controlled by dry filters.

History

This is a new emission source. This application is the first received for this source.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Recommendation

The staff recommends to the Commissioner that the revision be approved as an exemption. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 6, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations. (3 pages)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Becker Syntema Indiana, Inc.
Address City IN Zip: 4751 Green Court, Elkhart, IN 46516
ID: 039-14010-00555
Reviewer: Allen R. Davidson
Date: 05/31/01

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.314	11.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.6	0.0	0.5

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See Page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

HAPs Emissions

Company Name: Becker Syntema Indiana, Inc.
Address City IN Zip: 4751 Green Court, Elkhart, IN 46516
ID: 039-14010-00555
Reviewer: Allen R. Davidson
Date: 05/31/01

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.209E-05	6.906E-06	4.316E-04	1.036E-02	1.957E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.878E-06	6.331E-06	8.057E-06	2.187E-06	1.209E-05

Methodology is the same as Page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

The following table reflects the new source potential to emit:

Pollutant	Potential To Emit (tons/year)
PM	0.6
PM-10	0.6
SO_2	0.0
VOC	1.2
CO	0.5
NO_x	0.6

HAP's	Potential To Emit (tons/year)
TOTAL	<1.2

The potential to emit (as defined in 326 IAC 2-7-1(29)) particulate matter (PM) is less than five tons per year, and the potential to emit volatile organic compounds (VOC) is less than ten tons per year. Therefore, the revision does not require review under 326 IAC 2-5.1 or 326 IAC 2-6.1 and can be classified as exempt under 326 IAC 2-1.1-3.

This source is not a major source for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 because the potential to emit every attainment pollutant is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment (maintenance)
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.

Elkhart County has also been classified as attainment or unclassifiable for all other pollutants. Therefore, emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because:

(a) Although it is located in Elkhart County, it does not have the potential to emit more than ten (10) tons per year of volatile organic compounds or nitrogen oxides.

(b) It does not have the potential to emit more than one hundred (100) tons per year of any other pollutant specified in the rule.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Paint Booth

326 IAC 8-2 (Surface Coating Emission Limitations)

This facility is not subject to 8-2 because the facility does not emit 15 pounds per day or more of volatile organic compounds.

326 IAC 8-1-6 (General VOC Reduction Requirements)

This facility is not subject to 326 IAC 8-1-6 (General Reduction Requirements). Although there no other requirements in 326 IAC 8 which apply, the potential to emit volatile organic compounds is less than twenty-five (25) tons per year. Therefore, the BACT (best available control technology) requirements do not apply.

326 IAC 6-3-2 (Particulate Emissions Limitations)

This emission unit is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The control equipment is not required in order to comply with this limit.

State Rule Applicability - Mixer, Air Makeup Unit and Space Heaters

There are no state rules applicable to these facilities.

Conclusion

The construction and operation of these facilities shall be subject to the conditions of the attached exemption, No 039-14010-00555.

Company Name: Becker Syntema Indiana, Inc.
Address City IN Zip: 4751 Green Court, Elkhart, IN 46516
ID: 039-14010-00555
Reviewer: Allen R. Davidson
Date: 05/31/01

According to the applicant, up to 18 fluid ounces of material is lost per 55-gallon drum.

8.34 lb water / gal * gal / 128 fl oz * 0.9 (specif. gravity)= 0.0586 lb/fl.oz.

0.5 drum / hr * 18 fl oz lost / drum * 0.0586 lb / fl oz * 50% VOC = 0.2639 lb/hr

0.2639 lb/hr * 24 hr/day = 6.3332 lb/day

0.2639 lb/hr * 8760 hr/yr / 2000 lb/ton = 1.1558 ton/yr

0.5 drum / hr * 18 fl oz lost / drum * 0.0586 lb / fl oz * 50% solids = 0.2639 lb/hr

0.2639 lb/hr * 50% as overspray = 0.1319 lb/hr

0.1319 lb/hr * 8760 hr/yr / 2000 lb/ton = 0.5779 ton/yr

The following calculations determine the limit under 326 IAC 6-3-2:

E = 4.1 * (0.15 ^ 0.67) = 1.15 lb/hr (will comply)

1.15 lb/hr * 8760 hr/yr / 2000 lb/ton = 5.04 ton/yr